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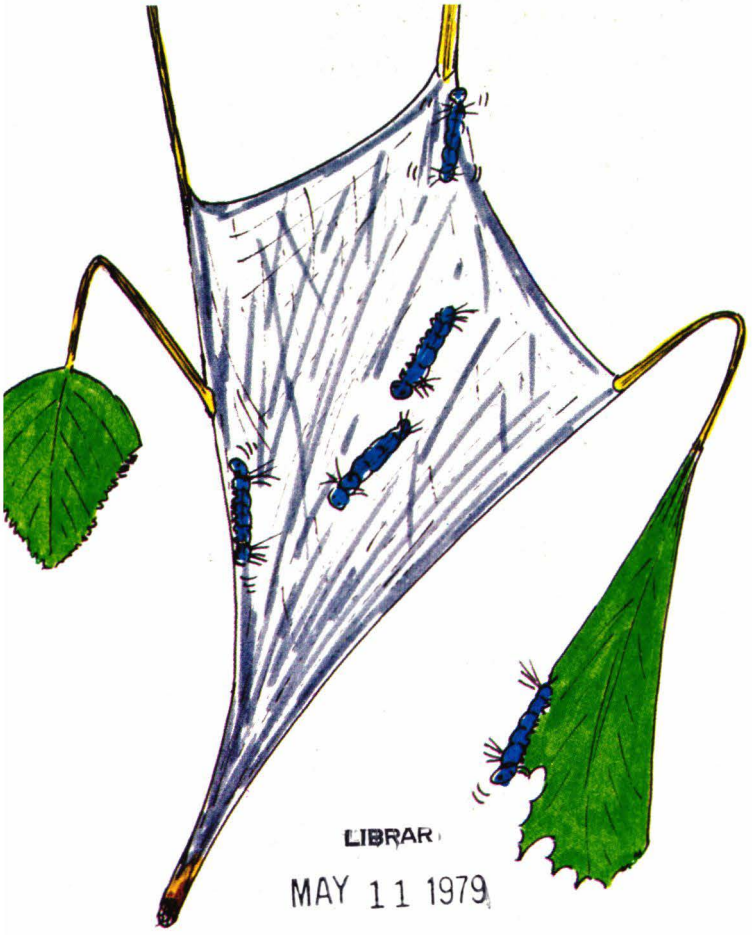
Western Tent Caterpillar in Aspen



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Southwestern Region

The most common defoliator of aspen in the Southwest is the western tent caterpillar, *Malacosoma californicum* (Packard). This insect is usually present in low numbers; however, occasionally climate and feeding conditions are just right and populations build up rapidly to outbreak proportions. When this happens, whole hillsides of aspen can be completely defoliated. Even though the defoliation and the web tents of the tent caterpillars are unsightly and caterpillars are a nuisance, control is not usually recommended because lasting tree damages rarely occur.

The purpose of this leaflet is to provide the reader with some information about this insect.

When outbreaks occur, large masses of caterpillars can be seen.

Life History and Habits

The western tent caterpillar has a one-year life cycle. The small caterpillars hatch from the eggs about the same time the aspen leaves come out in the spring. The caterpillars feed in a group on the young leaves and construct a silken tent in the fork of a nearby branch. They use the tent for resting and protection. During outbreaks, many tents are scattered throughout the crowns of infested trees.

As the caterpillars become older, they feed individually and begin to wander about over trees, nearby vegetation, and on the ground. During an infestation, thousands of caterpillars can be seen wandering around on the ground and roads in midsummer, and for a couple of weeks the insects can become a nuisance to campers and picnickers.

When mature, the caterpillars locate a suitable site, spin a cocoon, and pupate. In about 12 to 18 days, light brown moths, less than an inch long, emerge from the cocoon. The adults mate and each female lays one egg mass. The insects overwinter as small caterpillars inside the eggs.

Tree Damage

Aspen trees are usually not severely damaged by tent caterpillar feeding, even after two or three consecutive years of complete defoliation. Chlorophyll in the branches and trunk enables completely defoliated trees to still carry on photosynthesis. Later in the summer, after the caterpillars have pupated, trees that have been defoliated put out new leaves that are somewhat smaller in size.

Stand of aspen completely defoliated by western tent caterpillars.

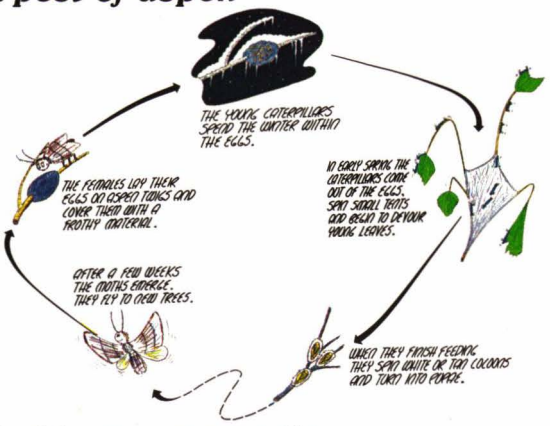
Some of the weaker, diseased trees may have top-kill, branch dieback, or total tree mortality after several years of repeated defoliation. Occasionally, groups of trees can be killed by particularly severe outbreaks; however, this is not a common occurrence.

Population Decline

Western tent caterpillar infestations usually last for three or four years, then collapse as a result of natural causes. Populations of natural insect enemies, such as small wasps that parasitize the eggs and caterpillars, are able to build up to levels that will suppress the caterpillar population.

Silken web tent of the western tent caterpillar.

the Western Tent Caterpillar
a pest of aspen


THE YOUNG CATERPILLARS SPEND THE WINTER WITHIN THE EGGS.
IN EARLY SPRING THE CATERPILLARS COME OUT OF THE EGGS, SPIN SMALL TENTS AND BEGIN TO DEVOUR YOUNG LEAVES.
WHEN THEY FINISH FEEDING THEY SPIN WHITE OR TAN COCOONS AND TURN INTO PUPAE.
AFTER A FEW WEEKS THE MOTHS EMERGE. THEY FLY TO OPEN TREES.
THE FEMALES LAY THEIR EGGS ON ASPEN TRUNKS AND COVER THEM WITH A FROTHY MATERIAL.

Life cycle of the western tent caterpillar.

Sometimes infestations are controlled by the occurrence of a virus disease that affects only this insect.

There are some insecticides registered and available for use against the western tent caterpillar. However, since populations build up and decline naturally, and cause little economic and environmental damage, it is usually not necessary to control this insect with an insecticide in a forest situation.

Individual or ornamental trees can be protected from defoliation by removing the young caterpillars and their tents by pruning or treatment with a registered insecticide.

For further information about this insect, contact:

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Forest Insect and Disease Management
517 Gold Avenue, SW
Albuquerque, New Mexico 87102
Telephone: (505) 766-2440

New Mexico Department of Agriculture
P.O. Box 6
Albuquerque, New Mexico 87102
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1624 West Adams
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